Richmond Refinery LPS Bulletin – Safety
#4 Crude Unit Fire- (11/14/2011)

IMPACT ERM Loss ID: 25885

Location: #4 Crude – Distillation and Reforming Division

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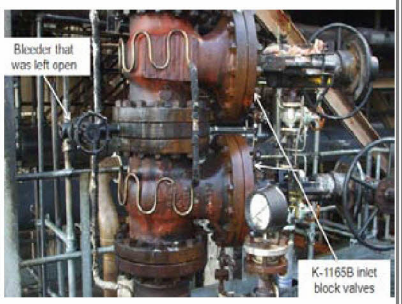

Bleeder that was left in the open position

Incident Description:

On November 14, 2011, at 5:30pm, the #4 Crude Unit was starting up after a planned major turnaround when a fire broke out in the unit. The operators were in the process of switching the residuum filters, K-1165A/B, due to a high differential pressure alarm across the filters. As the final moves were made to put the filter into service, operators noticed that hydrocarbon began leaking out of a nearby bleeder on the filter system piping. This hydrocarbon quickly ignited causing a fire in the unit. Chevron Fire was called as the unit was being depressurized. The fire was extinguished nearly 15 minutes later.

Investigation Findings:

1) The operations crew that was on the shift prior to the incident had performed work on these filters and the bleeder valve was left in the open position. This condition was not communicated by the previous shift to the next crew on duty.
2) Current Job Aids for these filters did not specifically address the work that was being performed during startup conditions.
3) When operators in the field reviewed the conditions of the filters before beginning the task, the open bleeder was not identified. It was noticeably dark in the area.

Lessons Learned

1) After completing a task, verify that all of the valves are in the correct position before leaving the job.
2) Communicate the current conditions and any other relevant information regarding the are or project to next shift so that they can address any current condition, including any abnormal or out of the ordinary situation.

What Worked Well:

1) Response of the operating crews to identify that all personnel were accounted for.
2) Response of the operating crew to the fire, including contacting plant protection and then promptly depressurizing the unit.

Recommendations:

1) Consider methods for improving Operator turnover during plant startup and shutdown periods so that the necessary and appropriate information is communicated by on shift to the next shift.
2) Consider developing a procedure that will cover switching filters during a plant startup where conditions are different than normal operations
3) Conduct a lighting survey of the area where this incident occurred to determine if additional lighting requirements are necessary.

Tenets of Operations Violated:

#2 – Operate in a safe and controlled condition
#4 –Follow safe work practices and procedures